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ABSTRACT

The second session of the International Commission on Education for the Twenty-First Century, held in Dakar, Senegal, was preceded by a 2-day working group on education in Africa, at which some 15 African educators, decision-makers, and intellectuals debated problems, approaches, and options in education. Several African educators at the highest levels participated in hearings before the Commission to further the dialogue on the relationship between educational aims and educational realities, particularly in the difficult economic and political context facing Africa. The text of this report incorporates the debates and conclusions of the working group, as well as the content of the hearings. Although the theme of the plenary was "education and development," an emphasis was placed throughout the discussions on the situation in sub-Saharan Africa. This emphasis was due both to the location of the meeting, and to the acuteness of the problems there. The Commission emphasized diagnosis, and questions, rather than the formulation of specific recommendations at this early stage. The first part of the report on education and development discusses educational provision, including mobilizing for the expansion of literacy, language of teaching, technical and vocational education, the role of universities in the economy, research, and diversification; and focusing on African problems such as education for women, political stability, overcoming handicaps, tensions between quality and quantity, and the teacher shortage. The second part of the report summarizes four specific topics developed by the Commission: (1) education and communications technologies; (2) education and work; (3) financing of education; and (4) education and international cooperation. (DK)

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Commission internationale sur l'éducation pour le vingt et unième siècle

International Commission on Education for the Twenty-first Century

SECOND SESSION
DAKAR, SENEGAL - 18-21 SEPTEMBER 1993

REPORT

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International Commission on Education for the Twenty-first Century

Second Session
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Final Report

INTRODUCTION

The second session of the International Commission on Education for the Twenty-first Century was held in Dakar, Senegal, from 18 to 21 September 1993. The Commission plenary session was preceded by a two-day working group, on education in Africa, at which some fifteen African educators, decision-makers and intellectuals debated problems, approaches and options in education. Several African personalities involved in education at the highest levels participated in hearings before the Commission, to further the dialogue on the relationship between educational aims and educational realities, particularly in the difficult economic and political context facing Africa.

The text of this report incorporates the debates and conclusions of the working group, as well as the content of the hearings. Although the theme of the plenary was "education and development", an emphasis was placed throughout the discussions on the situation in sub-Saharan Africa. This emphasis is a natural one, due both to the location of the meeting and to the acuteness of the problems there. Few regions combine such a wide range of features that make governance, economic and social progress and education so complicated. The nature of the debate, and the fact that this was the first in a series of regional meetings, led the Commission to emphasize diagnosis, and questions, rather than to formulate specific recommendations at this early stage.

Several topics were introduced, although not exhaustively, that have an intimate link with education and development, and are summarized in the second half of the report. Individual papers by Commission members formed the essential background for these discussions.

I. Education and Development

A. Educational provision

Where the expansion of formal schooling cannot meet the needs generated by increasing numbers and pressure for broadening access to basic education, expanded partnerships and new resources must be found, in keeping with the proposals outlined in the World Declaration on Education for All[1]. Willingness to participate on the community level is seldom lacking, but too

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[1] *World Declaration on Education for All and Framework for Action to meet Basic Learning Needs*, adopted by the World Conference on Education for All, Jomtien Thailand 5 - 9 March 1990. *Meeting Basic Learning Needs: A Vision for the 1990s*, Background Document, World Conference on Education for All, Published by the Inter-Agency Commission for WCEFA, UNICEF, New York, April, 1990.

seldom encouraged and supported. Many examples can be given of innovative, creative intervention on the part of parents to meet the educational needs in terms of buildings, teachers, and materials for teaching at the community levels, on the part of commerce and enterprise in training young people for jobs, and on the part of the religious community in providing support to basic education in various ways.

National and international authorities must step up their efforts to identify and nurture initiative that both helps extend educational opportunity and involve those concerned in the decision-making process. Greater involvement on the part of groups other than governments will be the key to expanding and diversifying educational provision in all countries for the foreseeable future.

The lessons of the past have made it clear that education and development programmes that do not correspond to goals clearly defined and understood by those they are destined for, cannot but fail. Thus, an imported system of schooling or of adult education, conceived without prior consultation, will not attract those for whom it is intended, or will result in massive drop-out and disenchantment of the community with what it has to offer.

On the other hand, policies allowing for local initiative and therefore differentiation in the provision of education according to local needs can be in conflict with the need to maintain unity within a system and to avoid institutionalizing differences or even discrimination. The search for equilibrium between these two legitimate requirements must constantly be kept in mind in attempts to improve both relevance and equity.

Mobilizing for the expansion of literacy

Although there is universal agreement on the part of intellectuals, policy makers, and leaders everywhere that literacy is an individual right, and that making universal literacy possible is the duty of all social groups, reaching some groups has proved to be extremely difficult. Groups of people who are marginal because they speak a language that is not widely spread, unwritten, or for which few materials are available, can be difficult to convince that the opportunity cost of going to classes is worthwhile, for them or for their children. Developing materials, methods and approaches that are persuasive in themselves is a challenge; while teachers know that the participation in literacy classes can have strong benefits in terms of self-confidence, the development of the ability to work in groups and articulate problems and solutions, illiterates can be difficult to convince. The task is complicated when the possibility of remaining literate is slim, because there is little practical use for reading and writing in daily life.

Language of teaching

The language of teaching is an issue on which there is no universal agreement, and where sensitivity to the special nature of each situation is required. There is a general call for teaching in the local language for at least the first years of basic education. In cases where the local language is not widely spoken, it is acknowledged that at some point a transition must be effected to teaching in a more widely-spoken language. In every multilingual situation the choice of languages used for teaching will fail to satisfy some elements of the community, and consultation and information must precede the development of policies in each case.

Technical and vocational education

Technical and vocational education and training are poorly developed in much of the developing world, and particularly so in Africa. Although there is clearly a need for middle-level technicians, people trained both in crafts and in technical fields, the scarcity of resources and the relatively higher cost of quality technical training make the development of this sector seem especially problematic. Furthermore, seen through the prism of the African economic crisis, where employment opportunities are few and where formal training has rarely met the needs for which it was designed, encouraging existing informal arrangements and on-the-job training appears to offer more possibilities than formal schooling.

Role of universities in the economy

In much of the developing world, universities have been in a crisis for the past decade: pressures of numbers, stagnant or diminishing resources, exodus of intellectuals, coupled with unstable political situations, constantly increasing graduate unemployment, and the effects of structural adjustment, have taken a heavy toll. In Africa, the decline in the quality of institutions of higher education has been dramatic, and the priorities assigned by international funding agencies do not hold out hope for significant growth in external assistance.

The academic community in the developing world is remarkably cut off from the economic community: links with industry or production sectors are absent or extremely feeble. Consequently, the development of applied research in areas linked to production is a necessity of the first order; currently, in much of the developing world, research is concentrated in the social sciences. In Africa, for example, in order to develop production, often entire technologies and the related expertise need to be imported (textile production, for example). Lack of expertise leads to bad choices, and inadequate application of these imported technologies.

Furthermore, the lack of a clear understanding of the philosophical foundations and cultural heritage of countries or groups is a major handicap to the development of endogenous research capacities. Investment in basic research, even in the poorest of countries, seems to be an essential ingredient for rejuvenated capacity at all levels.

Research

The gap in creation and possession of knowledge is growing between developed and developing countries, with few exceptions (notably certain countries in Southeast Asia). The drive to create an original, appropriate knowledge base, founded on endogenous technologies, is important; research, endogenous or not, cannot be of mediocre quality. In the words of one Commission member, "There is no such thing as local science. There is only science, science that meets international standards, but that can and must be addressed to local needs when resources are scarce." To develop the capacities of universities in developing countries to carry out scientific research that is both of high quality and that meets local needs, several major shifts seem to be required: 1) developing methods of access to information, by co-operative arrangements among universities themselves, with the help of developed countries; 2) imaginative steps to encourage the return, temporary or permanent, of expatriate intellectuals; 3) co-operative arrangements among institutions of higher education, to develop centres of excellence and avoid duplication, and to maximize the use of resources. In this connection, the conflict of priorities between shrinking education budgets on the one hand, and the simultaneous need to expand access to basic education and to attempt to expand both access and quality of

higher education on the other hand, is a preoccupation of the first order that must be addressed. Costs per student in higher education are extremely high, yet quality remains unsatisfactory: new initiatives are needed to find resources, and to use better available ones.

As with research, student enrollment in universities in many parts of the developing is overwhelmingly in the social sciences and arts, with a consequent excess of graduates in these fields, and scarcity of graduates in agriculture, technology, hard sciences, or health.

There is considerable experience in some parts of the developing world in incorporating and adapting research findings from other settings to particular situations. In Southeast Asia, core universities in the more economically-developed countries are able to support satellite universities working on specific areas, and to help in the development of centres of excellence.

Research is often initiated at the request of or to meet the needs of external forces. No matter how legitimate such research and development appears, it can and very often does, supplant local needs and local priorities. One hears frequent descriptions of the generation of information and research by local and national authorities exclusively in order to formulate requests for assistance, or to meet the requirements of donors. Entire research institutes have been known to work for "external" needs. The problem is compounded when local capacity to carry out such research is absent, and outside specialists are called in, taking away both the expertise and the results when the task is finished.

Diversification of the provision of education

Diversification of the provision of education, to meet needs and to generate new sources of financing, was a theme throughout the discussion. In many countries the costs for education, particularly in the higher levels, are not distributed according to the benefits accrued. Encouraging private investment in education, on the part of individuals, the financial community, enterprises, and other groups, can expand provision; this expansion should not take place at the expense of the overall goals of universal access and equity, but can be complementary.

B. Education and development: focus on Africa

The exchanges in the Commission confirmed a broad consensus on the aims of development: development defined as a general improvement in the standard of living, must be human-centered, conceived and carried out with a view to future generations, and should foster rather than hamper international co-operation and understanding. In context, these notions begin with basic human needs related to food and water, health, housing, education, and safety. The concept of needs can also be applied to groups, who aspire to participation and empowerment in forging their societies, to economic progress, and to shared values of social cohesion that are learned, internalized and applied[2].

Action requiring planning and investment to work towards sustainable development can seem to be in conflict with urgent, immediate needs, particularly for individuals and groups who have experience with the failure of previous strategies and ideologies that have not delivered their promises over the medium-term. Thus, it can be difficult to argue against the logic of opting for the apparent immediate rewards of short-term gain in economic or social areas, whether at the individual, community, or national level. The theoretical future economic benefits of structural

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[2] The Commission began the discussion on this topic on the basis of introductory remarks by Danièle Blondel on theories of development and their relevance to education. *cf* ***Development and Education*** by Danièle Blondel (September 1993).

adjustment, for example, weighed against the needs of the poor or the illiterate do not convince many of those who are subject to increasing hardship. Disillusionment with models and theories, distrust of foreign expertise, and the urgency of the desire to break the cycles of dependency, are clearly views that are widespread in developing countries. The increasing force and audience of fundamentalist, isolationist or xenophobic leaders in many ways results from the failure of contemporary political leaders to address meaningfully the basic needs of the least-favoured groups within their societies.

It is in its contribution to enabling people to formulate and understand what is required, both on an individual and societal level to move towards longer-term goals of development that education undoubtedly has its most vital function. One of education's fundamental roles is in empowering people to clarify their goals, and to become willing and competent to participate in the decisions that will govern their futures.

Education must, then, build a bridge from the past to the future, forging a creative link between respect for cultural identity and preparation for change, between respect for tradition and the use of tradition to build a different future. In societies where access to basic education is not universally available, and where educational provision is fraught with problems, the school, and then the university, become simultaneously sources of hope and focuses of criticism for not responding to expectations.

The provision of education for all, and the extension of educational opportunities to girls and boys equally, is the best hope of involving people in the construction of a positive and dynamic vision of tomorrow.

Women can and must be the catalysts for development in all areas: their role in communities, in the family, are keys to overall development. Enabling women to take responsibility for the choices affecting their health, their families, and their children, depend largely on access to education, and on better education. Clearly, when wide discrepancies persist in schooling rates between females and males, the most urgent priority is in expanding access, and participation by girls, in education.

Success in economic and social development depends to a large extent on the political stability, emerging from the political maturity of a nation or a society. Although not all educated societies are democratic (or stable), there is still an evident correlation between the value placed on education and the capacity to develop and maintain a significant level of social cohesion. The relationship between economic progress and democracy has direct pertinence for educational systems: some political leaders maintain that the first must precede the second, and that educational systems must, accordingly, communicate values of participation in national goals, even when these goals are not democratically-defined. The emergence of a productive, educated middle class, committed to national development and to democratic participation in defining the terms of such development, is a key element in the establishment and preservation of stable political systems and to overall economic progress. That such urban middle classes have not evolved to a significant extent in Africa is seen by many observers as a significant handicap.

Furthermore, as the informal economic sector in Africa is very important, and will likely be so for the foreseeable future, economic growth in the formal sector may not spill over into the segments of the population that most need it. "Structural adjustment, planted in a unprepared soil, cannot flourish."

In countries rich in natural resources in Africa, there has been a tendency to depend on export of primary products and to neglect technological advances. In Asia, export of primary products has been accompanied by technological progress and the development of a production economy. Creative borrowing from Western societies has been a key in Asian economic

progress: technology has been imported and adapted; foreign models of education have also been imported but adapted to the highly codified, centralized systems predominant in much of Asia.

In today's and tomorrow's global economy, education must contribute to mobilizing talents in developing countries, to enable poorer societies to participate fully in the world economy, an economy where national production cannot be completely protected from international competition, but that must be based on both international and local needs. In Eastern Europe, for example, the collapse of the protected production sector has been widespread, whereas smaller firms that are more flexible, led by more innovative individuals, have been relatively more successful.

i. Overcoming handicaps

The development of education in Africa over the foreseeable future will take place in a context of shrinking resources, massive foreign debt, and the highly contentious processes and results of structural adjustments. It is unlikely that there will be an important increase in foreign aid in the near future, and regular humanitarian crises due to famine, illness, and war, seem tragically inevitable in the short term.

The existence of colonial heritage, multi-cultural and multi-ethnic civilizations, the vast numbers of languages, are facts of civilization that must be understood, integrated, and transformed into assets. In those countries where market mechanisms are poorly understood and little applied, education has an important function in fostering entrepreneurial attitudes, skills, and the ability and courage to innovate.

The provision of basic needs, within the context of the development and empowerment of Africans, has not been a first priority, so that Africa has still not emerged from its dependency on foreign expertise and foreign ideologies. Sub-Saharan Africa, perhaps more than any other region of the world, is still suffering from its difficult transition from colonialism.

The pressures of population growth are particularly acute in Africa, where shrinking economies, difficult physical environments, chaotic urbanization, and other pressures have resulted in dramatic declines in the quality of educational infrastructures.

Agricultural practices, based on long-standing traditions of land ownership and on local technology, cannot be modernized through imported models. There is a desperate need for research on endogenous methods, practice, and possibilities that could meet the needs of local situations, and yet much of research and development work is donor-sponsored, donor-engineered, and not based in the real needs of a peasantry who are ill-equipped to formulate their needs and requirements.

Training and keeping a competent, committed intellectual and managerial elite is difficult everywhere in the world, but the consequences of losing the elites in Africa are particularly damaging. Because of the instability, corruption and inefficiency of many governments, a vicious circle is created whereby fewer and fewer highly educated people are willing to participate in political systems, leaving, as one participant put it, politics in the hands of fools and warlords. The organization of the civil society is poorly developed, leaving intellectuals either on the fringes or abroad. The Commission was keenly aware of the need for it to determine and recommend ways in which higher education can contribute to the development of a technically competent elite that can participate in a renewed development effort. There is a desperate need in Africa to developing a capacity and an infrastructure for high-quality endogenous research.

In view of the political, economic and social difficulties, how can an agenda for educational development in Africa be produced that stems from a mobilization of endogenous energies and resources, that engages and commits the intellectual and economic elites? In a period in which there is less and less impetus for co-operation and solidarity, the message must be communicated to decision-makers that unless Africa in particular can begin to close the gap--in education, in development, in basic human needs--with the rest of the world, the world cannot be a harmonious or safe place for the other inhabitants of the planet.

Tensions between quality and quantity

Overwhelmed by the pressure of numbers and the need to expand educational access, decision-makers must nevertheless pursue the search for quality. Practical applications, however, are the subject of considerable controversy. The systems of evaluation inherited from colonial systems reinforce inequality, through organization and methods that still have not been adapted to local needs, through their built-in encouragement for high rates of repetition, and through examination systems that are generally designed less to test learning than to select pupils or students for the next level. School infrastructures, including buildings, desks and other materials are poor or absent. Schoolbooks and other teaching materials are rare or non-existent. Wide use of academic criteria, assessment methods, and curricula adopted from systems with different goals and means, provides a striking contrast to the often-expressed desire to provide education pertinent to the lives and needs of African learners.

There is a continuing tension between the need to expand education to the widest possible number and that of ensuring that the system brings forth elites capable of contributing to economic, scientific and political progress. Schemes for cost-recovery, or the development of private education are the subject of some controversy, particularly at the higher education levels.

In sub-Saharan Africa, in spite of progress, rates of schooling and literacy are lower for girls and women than for boys and men (sometimes spectacularly so), and Africa as a continent has made less progress than other regions of the world in this regard. There is also a shortage of middle-level technicians. Increasing access to education for rapidly-growing school-age populations (especially the disproportionate numbers of girls left out of the system until now) is proving increasingly difficult. Rates of repetition are, as a whole, higher in Africa than elsewhere, and dropout due to failure or simply discouragement with the system is not only widespread but growing.

Lastly, providing a link between formal schooling and other types of learning (apprenticeship, including in the informal sector, community-based, religious, or family based provisions) has proved very difficult. The transition from schooling to participation in society is effected with difficulty: there is frequently deep disillusionment with a system that seems to parents and pupils alike to have deceived them. School does not lead to employment, and graduates from higher education are frequently obliged to go abroad to find work corresponding to their qualifications.

These tensions, coupled with lack of clarity in educational aims, result in further distortions in systems of evaluation, types of structures, and management policies.

The shortage of teachers, both in quantity and quality

In spite of the many problems with education, decision-makers feel that too much of the blame for social ills is laid on educational systems, blame that, by extension, is directed at teachers. It is imperative to find ways to recruit and train teachers committed to their profession, imbued with an appropriate teaching and moral ethic. The fact that teachers are more often than not poorly trained, poorly paid and poorly motivated creates a conflict between the requirements and the reality.

Teachers are caught in a double bind. On the one hand, their conditions of employment are, objectively, considerably worse than one or two decades ago: salaries, although high compared to the vast majority of those who do not participate significantly in the monetary economy, are not adequate to permit teachers to live above the bare subsistence level. Their living conditions are often extremely poor, and when they teach and live outside their own communities, they can be more impoverished than the local population, depending on charity when government salaries fail to arrive, or deserting their posts.

On the other hand, remedies to teachers shortages have tended towards further increasing the number of pupils per class (already up to one hundred and fifty in some countries), shifts, and multi-grade classrooms. The expectation that teachers can both work in worsening conditions and fulfill the expectations of society is increasingly untenable.

Improving training, however clearly this is needed, poses numerous problems: funds are lacking to train and remunerate qualified teachers, and governments that are already virtually unable to meet the salary costs of the teachers they have are reluctant to envisage measures that would increase the financial burden of teachers wages.

ii. Building on the assets

Africa possesses a relatively robust informal sector, where both innovation and training are commonplace. It is the informal sector that has, in recent years, shown the most vitality, both economically and in the development and transmission of competencies, and decision-makers must place more emphasis on building on these assets, largely ignored by formal education systems until now.

The solidarity, among families and communities that is a feature of African life is a strength that can be capitalized on for investment and development of local economies. This solidarity, manifests itself in education through the organization and financing of schools in many cases when the government has failed to meet local needs.

The developing countries of Africa are facing an immediate and medium-term future in which very little outside help, relative to the past, will be forthcoming. This will place heavy burdens on society, but according to participants at the working group, could be the required stimulus needed to meet the challenges of the future. Paradoxically, it may be the reduction in outside assistance that will stimulate the formulation of independent, appropriate visions for educational development in the poorest countries.

Education is a key element of development; it also now has perceived responsibilities for encouraging a type of development that is sustainable, and that strikes an appropriate balance between economic gains and preservation of the global environment, that both meets the needs of today and respects and preserves the environment for the needs of the future. Here, two conceptual approaches emerge, one in which education must not be dispensed through a top-down approach, devised at a central point whether national or regional, but devolved to

communities that are given the tools and means to exercise their ingenuity, to innovate, and to define and respond to their own needs. The second, perhaps more complementary than contradictory approach, views the nation as the guardian of certain basic principles of action that must be applied and supervised: equality of opportunity, ensuring basic standards and a minimum of equity. These two approaches must operate in a complex system of checks and balances in which the equilibrium is constantly changing.

In education, the transition first from traditional education to the colonial models, imported and imposed, and that are still the basis of organization and evaluation of learning, and then to post-colonial reforms, sometimes again imported for ideological or economic reasons, results in systems riddled with difficult-to-manage contradictions in goals, values and approaches.

iii. Recommendations

Challenges facing Africa should be seen in the light of an overall preoccupation with reversing negative trends that are afflicting Africa in the fields of environment, population, health, or the economy. These challenges fall into three main categories:

- enhancing natural resources (water, electricity, endogenous technology) and human resources (including slowing the emigration of the elites);

- ensuring equity and social cohesion by improving the functioning of institutions (both political and educational), with particular attention to facilitating the insertion of young people and women into society and the development of an active civil society;

- constructing a renewed sense of cultural identity that can contribute to developing a vision of development specific to Africa.

Diversify the provision of education by

i. diversifying its contents, to meet the needs of a system that must attempt to provide education for all, middle-level training, and the training of a scientific, political and intellectual elite, while taking into account needs of special groups (the handicapped, the poor, and other marginalized groups);

ii. diversifying and ensuring cohesion between different types of education, both systems and structures, by developing a wider variety of types of institutions and methods of provision; and diversifying both decision-making process and responsibilities for educational provision.

Generate a capacity for research, and an expertise appropriate to Africa by

i. teaching science to all in primary education;

ii. developing and/or making available data bases and information systems on Africa, in the fields of technology, science and social science. Mobilizing the scientific and research capacity of the African diaspora.

iii. encouraging the development of endogenous creativity and entrepreneurial skills.

iv. mobilizing the capacity to develop and use advanced science for development in Africa, such as biotechnologies.

Develop the political competencies and capacities for governance, by

i. developing relevant national, regional and international institutions;

ii. ensure participation at all levels of people in decision-making processes (for example, consultation of teachers and parents concerning educational change);

iii. creating and reinforcing links of co-operation and solidarity within Africa, in the fields of scientific research, university study;

Members of the working group proposed some practical measures to carry out these general recommendations, for example:

To promote an African scientific culture, one needs to:

- ensure an appropriate status for African researchers;
- extend science teaching in order to include endogenous science (medicine, agriculture);
- encourage endogenous creativity through competition and a ministry of intelligence.

To reconcile educational quality and quantity, according to another member, and help remedy the frequent despair of youth who come through secondary education without the possibility of employment, one should:

- create short, professional training courses relevant to the realities of regions that are decentralized, at all levels of formal education, decentralized and operated with the co-operation of businesses and communities, so that they are relevant to the reality.

To reconcile external pressures and internal needs in the area of research,

- finance, on the basis of submissions, networks of researchers operating with recognized scientific standards applied by selection committees, to encourage work by Africans outside Africa; such networks could encourage, through scholarships, young researchers working on problems relevant to Africa;
- create regional university co-operation by encouraging the development of a pan-African university map.

To favour the endogenous development and creation of better infrastructures,

- use the competence of local artisans to create and enhance the capacity to use and maintain technical plant, and thus giving greater esteem to manual labour.

To improve quality of education,

- experiment with innovative educational practice, but not restricting these experiments only in privileged circumstances, leading to results that are not useful for broader implementation.
- train school managers, and not retain incompetent teachers.

iv. Role of the Commission

In addition to these recommendations on education, the group expressed the hope that the Commission could itself play a role in renewed interest and attention to educational questions by:

- using to best advantage existing information and experience emanating in particular from the preparation for Jomtien and the various follow-up activities. The group was willing to participate in this process, through written submissions and exchange;

- promoting international co-operation in general;

- building a forward-looking vision of education that can include the specific vision for education in Africa.

II. Specific Topics

A. Education and communications technologies

Communications technologies, it goes without saying, are imposing themselves in every walk of life: and yet, large segments of populations have no access to these technologies except to submit to them. The use of technologies in education is variously developed, and although the introduction of communication technologies into the learning process at an early age appears to be an attractive, even imperative necessity, most teaching in the developing world takes place without the most basic kinds of support materials.

Other issues are the reciprocal influences of communications techniques and education, particularly as relates to radio and television, and the need for wider access to information and communications technology on the part of university teachers, researchers, and those involved in technological development in general. The deteriorating situation of most university libraries, the comparative poverty of scientific networks in the developing world, the desperate need for scientists in poorer countries to be able to have access to information, research results and contacts with colleagues, were recurrent themes.

In developing countries, mostly deprived of the sophisticated tools for seeking and obtaining information that exist in the industrialized countries, a great deal of hope is placed in the availability of information through communications networks. This ranges from education on health and agriculture through radio to access by researchers to electronic data banks to alleviate the hardship caused by inadequate university libraries and the lack of adequate research facilities and direct contact with colleagues.

All over the world, the predominance of communications media, particularly television, and international advertising, are being felt, predominance that challenges educators. Media require no effort on the part of listeners or viewers, they are seen as exciting, their timetables condition lifestyles in an increasing number of settings. Although, increasingly, the methods and values of the school are in conflict with the messages that come through the media, the comparative advantage of learning situations is their longer time-frames, that permit building up knowledge and experience and that provide for interaction. These issues, evoked but not discussed in depth, will be further explored in other sessions.

B. Education and work

Education and work, a central topic to the work of the Commission, was not the specific focus of the Second Session. Consequently, although the relationship of education with the

economy in general was evoked, as can be seen at many points in this report, the specific links between educational processes and contents and entry or re-entry into the monetary economy was not discussed in length. These links will be returned to at subsequent sessions.

Nevertheless, it was clear to all participants that changes in the location, nature, and availability of work are part of our contemporary landscape, changes that are rapid and affect even the most remote corners of the planet. The preparation of a work force that is competent and adaptable, through educational systems that in most cases cope inadequately even with unchanging tasks such as literacy and numeracy, is a daunting enterprise. And yet, those countries of the developing world that have reached the economic takeoff point are all countries where education is widespread, where there is an educated labour force available to meet the challenges of globalized production.

C. Financing of education

Universally affirmed as a goal by the World Conference on Education for All at Jomtien in March 1990, the provision of basic education for all engenders issues of finance that go well beyond educational systems in the strict sense of the term. Today, there are nearly one billion illiterates in the world, two thirds of whom are women. Literacy training, and skills training, makes adult education a crucial issue as well. Precise figures cannot be put on costs required, but orders of magnitude and qualitative elements can be introduced.

In looking at figures, although in developing countries expenditure is up to twenty times less per pupil in real terms, the proportional effort of poor countries is much greater, both in cost per pupil and as a percentage of the public budget. Furthermore, the austerity policies resulting from economic crisis and from structural adjustment policies have resulted in a relative decline in expenditures for education in half of the countries in Sub-Saharan Africa and one-third of the countries in Latin America and Asia. When one adds to these problems the pressure to increase the length of basic education, the need to improve quality by reducing repetition, improving teacher training, and increasing the availability of teaching materials, it is clear that improvements in the current situation will require general economic growth as well as a greater part of the GNP devoted to education.

Two issues emerge. How can one better meet the needs for education, and, as a corollary, since all needs cannot be met, how can one decide priorities?

Meeting needs, through the reduction of unit costs per pupil to increase access involves one or a combination of several measures, some highly controversial: better management of available resources, higher teacher/pupil ratios, reducing cost of teachers by reducing salaries or increasing the number of unqualified teachers, using communication technologies to decrease unit costs, increasing the size of educational establishments, and reducing the cost per pupil by, for example, reducing repetition.

Increasing expenditures for education, when national budgets cannot be increased, can take place in several ways: reducing military budgets and allocating the savings to education, distributing costs differently by contribution in the forms of fees or in kind from users' families, by involving the economic community, by privatizing some educational establishments. Although government subsidies in these cases can have a multiplier effect on the provision of education, the nature of the responsibility of governments changes.

Defining priorities involves an inevitable reflection on the equilibrium between universal basic education and the training of highly-qualified elites. Although one can see throughout the world approximately half of public education budgets are devoted to primary education, the

relative cost of students in higher education varies dramatically. In OECD countries, the ratio is 1:3, in Latin America and Asia, it is 1:6 or 1:7, and in sub-Saharan Africa, it is 1:40. Donors for many years gave preference to secondary and higher education, and to buildings and infrastructures, creating an increase in running expenses and additional handicaps for primary education.

Redefining the relative importance of levels of education in public budgets implies choices among levels (primary, secondary and higher education), between general and technical education, between initial education and between recurrent education. Making better use of public budgets implies giving priority to expenditures on basic education and to finding new partnerships and new sources of financing for the other levels and types of education: the economic sector for technical education, community participation for adult literacy, apprenticeship and community participation for lifelong education, and participation on the part of users and the economic sector for higher education.

The financing of higher education is not only a question of quantity, but of the structure and distribution of expenditures, raising thorny issues of equity, of the role of higher education as a social service, and of the rights and status of teachers.

D. Education and international co-operation

In a context where educational assistance is more closely scrutinized, both by the donors and the recipients, a number of new requirements, attitudes and priorities seem to emerge. First is the desire that expertise developed during the assistance process stay in the countries. Second, there is the need for recipients of assistance to develop a vision of what they want for education in general, and how they feel aid can complement what is done on the national level. Too often aid is viewed as merely a top-up for the overall education budget, and can serve to put off the day when needs and resources are balanced against each other to form a coherent policy. Concomitant to the development of a national position is the development of national expertise to prepare projects for international donors, to carry them out, and to present alternative visions and methods when it is felt the donors are imposing their views and concepts.

Recipients of aid dislike the conditions placed on receiving it. Donors, answerable to their own constituencies and operating with their own priorities, feel they must have some influence on the establishment of projects and the criteria for distribution of resources. There is much criticism from analysts on both sides and reflection on how the long-term impact of assistance could be improved.

Debate is growing on ways to maintain or increase investment in education in spite of structural adjustment, in spite of the debt burden, in spite of economic crises of all orders: one important contribution to this debate concerns the exchange of debt for support to education. The Commission felt that this concept needed further study and exploration.

CONCLUSIONS

The debates of the Commission underlined several themes that will be important ones for the recommendations.

First, the time-frame of educational change is a particularly long one. Changes in the organization and conception of education are particularly lengthy: implementation is long, and the effects of changes are felt over an extraordinarily long period of time. Consequently, in meeting educational requirements by change, one must take into account the various time-

frames, and the effects of these changes in other fields over time. As a corollary, it is crucial to realize that, no matter how urgent the problems, making a transition in educational development is a long process.

Second, variety of situations, cultures, and points of departure make it clear that responses must be diversified; moreover, diversity in educational approaches, provision, and responsibilities, seems to be provide a better guarantee of equity than a monolithic system. Therefore, within each individual context, a reflection and review of the distribution of responsibilities for education between the State and of various private initiatives must be part of a vision for the development of education.

Third, changes in education, no matter how desirable in principle and how theoretically appropriate, cannot take place without participation on the part of the users and targets of education: pupils, parents, adult learners. Thus, participation, and a sense of responsibility, for education are prerequisites to any change and improvement in the *status quo*.

Fourth, decision-making constantly involves a complex search for equilibrium between apparently contradictory forces: relevance and equity, unity and diversity, tradition and transition. It is in the constant search for dialogue and democratic debate surrounding these contradictions that responses can evolve to particular situation, and that, in the words of one Commission members, progress through history becomes not a random walk but deliberate movement, with errors to be sure, towards a chosen goal.

Lastly, the Commission will continue to focus on a selected number of key concerns that emerge from the lines of enquiry, since attempting comprehensive coverage of all educational issues and concerns all over the world would be neither realistic nor productive. There has been recent in-depth study and consensus of the international community on the importance of extending access to basic education to all, reflected in the statements of the World Conference on Education for All, or on the need to aim for sustainable human development, as described and studied in the Human Development Report of UNDP, for example, and these areas of agreement will form the foundations for recommendations that will complement and complete these broad agreements.

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